SEPARATION OF INTERSTATE AND INTRASTATE ACCOUNTS IN FEDERAL AND STATE REGULATION OF RATES

I

WHEN a railroad runs through several states, as almost all the railway systems of our day do, it is unavoidable that in determining the reasonableness of a rate established by one of the states the situation of the whole line must be considered. But there is involved inevitably, if the theory underlying the Constitution of our United States is to be put into practice in state and federal regulation of rates, a separation of intrastate and interstate accounts. Thus, where the intrastate rates of an interstate system are brought in question, one of two plans must be adopted: (1) if the income of the whole line is taken as a basis of inquiry, then the possibility of the other states fixing a similar rate must be considered; (2) or if, on the other hand, this one rate is considered, its reasonableness must be determined by an examination of the capitalization and income of the road within the particular state. It would seem to be clear upon theory that the rates for such transportation as begins and ends in the state must be established with reference solely to the amount of business done by the carrier wholly within such state, to the cost of doing such local business, and to the fair value of the property used in conducting it, without taking into consideration the amount and cost of its interstate business and the value of the property employed in it. The argument to the contrary leads to the conclusion that a state could go beyond the confines of its jurisdiction to the extent of requiring local business to be conducted even at an actual loss, if the company earned on its interstate business enough to give it just compensation in respect of its entire line and all its business, interstate and domestic. Although the general rule governing this whole situation which has finally been established may be stated in a few words, the application of it to particular facts by reason of the complication of the accounts involved is a very dif-

ficult matter indeed. But the principle which has been established is sufficiently stated when it is said that the Constitution as interpreted by the Supreme Court of the United States requires that the value of the plant utilized in the intrastate business and the net earnings from such business must both be ascertained in order to determine whether the rates fixed by the state or its Commission are reasonable or confiscatory.

II

In the earlier days the contention was tentatively put forth that such interstate traffic as originates or terminates in the state should be divided upon a mileage basis, and such portion thereof as was done within the state held to be subject to state control, and taken into consideration in determining the reasonableness of the rates fixed by its Commission. This, however, as was appreciated almost from the outset, cannot be done. Commerce which begins in one state and passes into another is not less interstate commerce than that which passes entirely across states. If the different states could regulate that portion of interstate commerce which is moved within their respective limits, there would be left no commerce whatever subject to congressional control. This whole matter has been repeatedly before the Supreme Court of the United States, and since the case of *Wabash, St. Louis & Pacific Railroad* v. *Illinois*[1] that court has uniformly held that the states cannot fix rates for, or regulate in any manner, that portion of interstate commerce which moves within their territorial limits. Such traffic, throughout its entire course, is subject to the exclusive jurisdiction of Congress, just as commerce between two points wholly within a state is subject solely to the jurisdiction of its authorities, according to the present exercise of powers of government under our system.

All this was first pointed out by Mr. Justice Brewer in the leading case of *Chicago & Northwestern Ry. Co.* v. *Dey*.[2]

[1] 118 U. S. 557 (1886).

Until a statutory rate is established what would be a reasonable rate at common law under the Constitution governs, and furthermore what is the reasonable rate in the case of statutory regulation under the Constitution depends upon the significance of that phrase at common law. Southern Indiana R. Co. *v.* Railroad Commission, 172 Ind. 113, 87 N. E. 966 (1909).

[2] 35 Fed. 866, 881 (1888).

"Defendant's road runs through other states; these states may impose no schedule of rates; part of its business is interstate, and only Congress can limit that; so that from the business elsewhere revenues may be earned which will enable it to make up any deficiency in this state. But the invalidity of this schedule does not depend upon legislation or action elsewhere. If this schedule may be put in force here, a similar one may be in Illinois, Minnesota, and other states through which the company's road runs. For some purposes its property in this state is separate and distinct from its property elsewhere, and out of this property within this state it is entitled to receive some compensation. Robbing Peter to pay Paul has never received judicial sanction."

The other possibility, that the reasonableness of the rate must be determined upon the assumption that the same rate will be adopted throughout the whole system, was that applied in *Steenerson* v. *Great Northern Ry. Co.*[3]

"It seems to us that there is scarcely any good reason why a railway system should be divided on state lines at all for the purpose of fixing rates. After rejecting the portions that are not self-supporting, the balance of the system may be considered as a whole; and, in fixing rates in one state, it will only be necessary to see that, if rates are properly adjusted throughout so as to correspond with the rates thus fixed, the whole of such balance of the system will yield a reasonable income on the cost of reproducing the same."

The Supreme Court of the United States, however, adopting the first alternative, has long since insisted upon the separation of the value of the plant used for merely intrastate business, and also of the net earnings from such business, and that upon these bases the reasonableness of the rate fixed by the state shall be determined. In the leading case on this point, *Smyth* v. *Ames*,[4] Mr. Justice Harlan said:

"In our judgment, it must be held that the reasonableness or unreasonableness of rates prescribed by a state for the transportation of persons and property wholly within its limits must be determined without reference to the interstate business done by the carrier, or to the

[3] 69 Minn. 353, 396, 72 N. W. 713, 724 (1897).

[4] 169 U. S. 466, 541 (1898).

See Philadelphia & R. Ry. Co. *v.* Interstate Commerce Commission, 174 Fed. 687 (1909), as to the impropriety of assuming that the cost of moving a particular traffic is the average cost of handling all traffic.

profits derived from it. The state cannot justify unreasonably low rates for domestic transportation, considered alone, upon the ground that the carrier is earning large profits on its interstate business, over which, so far as rates are concerned, the state has no control. Nor can the carrier justify unreasonably high rates on domestic business upon the ground that it will be able only in that way to meet losses on its interstate business. So far as rates of transportation are concerned, domestic business should not be made to bear the losses on interstate business, nor the latter the losses on domestic business."

III

The observance of this rule depends ultimately upon the practicability of allocating shares in accounts necessarily joint. But this process must be employed in order to determine the cost of any branch of a service rendered by a system, whether it be a question of separating passenger capital from freight, or interstate expense from intrastate. Of any given railroad it may be said that it is entitled to take as gross receipts from its whole business a certain sum, determined by taking its operating expenses, including therewith all proper maintenance charges, and adding to these its fixed charges, that is, a fair return upon a reasonable capitalization. In testing freight rates the standard to be determined is the ton-mile cost. If the sum of the whole amount of freight carried be one hundred million ton-miles, and the gross revenue required from freight be one million dollars, the average rate of freight will be one cent per ton-mile. If there were no other factors in the problem, therefore, a fair proportionate rate would be the ton-mile average charge. But as other factors are always present which cause a difference between commodities with respect to the fair charge for carrying them, a uniform ton-mile rate applied to all cases would not result in reasonable rates.[5]

Evidence must be adduced by the carrier, in attacking the rates fixed by the government, of sufficient force to convince the court that the authorities have acted arbitrarily without reference to cost. Although generally abhorrent to economists, the ton-mile cost basis is well recognized in determining the reasonableness of particular rates. In a recent case[6] in the United State Supreme

[5] Wood *v.* Vandalia R. R. Co., 231 U. S. 1 (1913).

[6] Atlantic C. L. R. Co. *v.* Florida, 203 U. S. 256, 260 (1906).

Court, where the issue was whether a certain rate upon phosphate fixed by a commission was fair to the railroad affected, it was said:

"There is testimony tending to show the gross income from all local freights and the value of the railroad property, and also certain difficulties in the way of transporting phosphates owing to the lack of facilities at the terminals. But there is nothing from which we can determine the cost of such transportation. We are aware of the difficulty which attends proof of the cost of transporting a single article, and in order to determine the reasonableness of a rate prescribed it may be sometimes necessary to accept as a basis the average rate of all transportation per ton per mile."

Cost is, therefore, an important element in arriving at a judgment with respect to a rate. What weight shall be given to that element, as compared with all the other elements entering into a particular rate, the courts have hitherto been inclined to say, was a matter to be decided in each individual case. Our commissions have not been willing to compel the establishment of rates solely according to mileage; the public benefits, the greater volume of business of carriers warranting lower rates to all, the force of competition and many other potent considerations still outweigh a claim of right founded only on geographic location. And it is true that in themselves ton-mile statistics, reflecting as they do neither car loading, train tonnage, nor car or train mileage, are far from being infallible guides in fixing freight rates. But the drift toward the doctrine that rates should be proportioned according to differences truly existing in the cost of rendering the service is altogether in accordance with the tendency of the modern law of public service against all discriminatory practices.[7] Indeed, any method of fixing rates which results in disproportionate treatment to different customers asking somewhat different services seems to the writer to be against that fundamental principle of equality which of late years has been held to be violated by discriminatory treatment of different patrons asking substantially similar services.

A schedule of rates in which the respective rates are based upon their proportional cost of the whole service rendered would not fail to-day to meet the approbation of the courts. Not only would

[7] See Southern Ry. Co. *v.* St. Louis H. & G. Co., 214 U. S. 297 (1909).

all courts agree that legislation forbidding disproportionality in rates is unconstitutional, but also it is doubtless law that a public-service company may so arrange its schedule as to make each rate yield a reasonable profit for each service above the fair cost, without any question as to the legality of such a course.[8] And according to the latest opinion in the Supreme Court, a state is held to act in defiance of the constitutional rights of the carrier by imposing a schedule in which the rates in one part of the service are fixed so out of proportion with the rates in another branch as to throw an undue share of the total burden upon the business where the rates are reduced; and it is therefore now clearly established that, if the policy of proportional distribution of the real costs is adopted by the rate-making body, no objection can be made on any grounds whatsoever. The suggestion is sometimes made that a distinction is to be drawn between keeping the different classes of charges proportionate and making the particular rates proportionate. Except for the inherent difficulties of pursuing the inquiry further, the writer perceives no difference in principle between the two; and he has no reason to believe that the distinction has foundation in law.

IV

In accordance with these principles which have now come to be regarded as fundamental, the method of procedure where the cost of conducting intrastate transportation is in question is to find what part of the gross receipts is derived from business within the state, and then find the actual cost of doing that business. This, however, cannot be found by taking a proportionate part of the cost for the entire system, since the cost of moving local freight is greater than that of moving through freight.

"Additional fuel is consumed at each station where there is a stop. The wear and tear of the locomotive and cars from the increased stops and in shifting cars from main to side tracks is greater; there are the wages of the employees at the intermediate stations, the cost of insurance, and these elements are so varying and uncertain that it would seem quite out of reach to make any accurate comparison of the relative cost. And if this is true when there are two separate trains, it is more so when the same train carries both local and through freight. It is impossible

[8] See Seaboard A. L. Ry. *v.* Florida, 203 U. S. 261 (1906).

to distribute between the two relative cost of carriage. Yet that there is a difference is manifest, and upon such difference the opinions of experts familiar with railroad business is competent testimony, and cannot be disregarded. The fact that an exact mathematical computation of the cost is impossible is immaterial; the cost must be found, as best it may, before the reasonableness of the local rate can be determined. There are many things that have to be determined by court and jury in respect to which mathematical accuracy is not possible." [9]

Again, in another way, the error in any such unsophisticated computation will be manifested. Say that the testimony discloses that the operating expenses of the entire system during each of the years were over 60 per cent of the gross receipts. If the cost of doing local business in the state in question will be the same as that of doing the total business of the company, then the net earnings of that local business would not exceed 40 per cent of the gross receipts. Suppose that by the reduction put in force by the Commission of the state the gross receipts will be less by 15 per cent; that would then leave 25 per cent of the gross receipts as what might be called net earnings, to be applied to the payment of interest on bonds and dividends on stock. But further testimony in such a case will invariably show that the cost of doing local business is much greater than that of doing through business. If it should be 85 per cent of the gross receipts, then a reduction of 15 per cent in the gross receipts would leave the property earning nothing more than expenses of operation. These lines of computation show that without a finding as to the cost of doing the local business it is impossible to determine whether the reduced rates prescribed by the authorities of the state were unreasonable or not.[10]

To continue the inquiry further, suppose the total value of the property of the railroad within the state is found to be $10,000,000 and the total receipts both from interstate and local business are $1,000,000, one half from each. Then, according to the method once confidently asserted but now generally condemned, the value

[9] Chicago, M. & St. P. Ry. Co. *v.* Tompkins, 176 U. S. 167, 178 (1900).

For this purpose, among others, it has recently been established that the Interstate Commission can require carriers engaged in both interstate and intrastate commerce to make full returns of all their accounts of every sort. Interstate Commerce Commission *v.* Goodrich Transit Co., 224 U. S. 194 (1912).

[10] See the discussion of these facts in the lower court — Chicago, M. & St. P. Ry. Co. *v.* Tompkins, 90 Fed. 363 (1898).

of the property used in earning local receipts would be $5,000,000, and the per cent of receipts to value would be 10 per cent. But the error in this method of computation may be seen by supposing the interstate receipts to remain unchanged and letting the local receipts by a proposed schedule be reduced to one fifth of what they had been, so that instead of receiving $500,000 the company only receives $100,000. The total receipts for interstate and local business being then $600,000, the valuation of $10,000,000, divided between the two, would give to the property engaged in earning interstate receipts in round numbers $8,333,000, and to that engaged in earning local receipts $1,667,000. But if $1,667,000 worth of property earns $100,000 it earns 6 per cent. In other words, although the actual receipts from local business are only one fifth of what they were, the earning capacity is three fifths of what it was. And turning to the other side of the problem, it appears that if the value of the property engaged in interstate business is to be taken as $8,333,000 and it earned $500,000, its earning capacity would be the same as that employed in local business — 6 per cent.[11]

It has, however, generally been recognized that local shipments are much more expensive to handle in proportion to mileage than long-distance shipments. As enumerated in one case in the federal court, this is brought about by three factors: "(1) The shortness of the haul; (2) the lightness of the train-loads; and (3) the expense of billing and handling the traffic." [12] But warning has been given in more recent cases that these differences must not be formulated arbitrarily into a ratio, fixed without reference to particular circumstances, to the effect that the cost of handling intrastate business in comparison with interstate business is in the proportion of 2 to 1. It follows that the one thing to be determined is the separate cost of the interstate business considered by itself. There must be a serious attempt to determine by extrinsic evidence the actual cost of doing intrastate business. At all events, the difference in cost between interstate and intrastate business is such that the percentage of difference between the cost of doing intrastate and interstate business may approximately be estimated with some degree of certainty.

[11] See also *In re* Arkansas Ry. Rates, 163 Fed. 141 (1908).

[12] Northern Pacific Ry. Co. *v.* Keyes, 91 Fed. 47, 53 (1898).

V

The state legislation of a few years ago reducing passenger fares could, of course, only apply to intrastate business. To determine whether this reduction was unjustifiable the federal courts found that they were required not only to allocate the respective costs of passenger and freight business, but also to apportion these to the intrastate and interstate business. In one of the leading cases [13] in this subject, Judge McPherson narrowed the discussion of the basis of apportionment to two theories — the mileage proportion and the revenue proportion. He admitted that neither of these would result in mathematical accuracy; but he insisted that as a practical matter the one which promised to be most satisfactory should be taken as the basis of action. "The theory to now recognize must be either the proportion of earnings, state or interstate, or ton and passenger mile." After reviewing what few cases there are bearing upon the point, notwithstanding that in many of them the greater proportionate cost of local business as compared with through business is pointed out, he said that, although other standards are suggested, the more satisfactory and accurate was "the difference in cost in relation to the revenue."

In a later case [14] this view was elaborately defended by Judge Hook as a working basis for the distribution of all expense incident to railroad business among its revenue yielding operations of every character.

"From the very nature of the case, therefore, some rule must be adopted for charging to each of them their fair and equitable proportion of the common expense. Of necessity it must proceed upon average conditions commonly known or shown to exist, and it argues nothing to say that it does not fully apply to this or that exceptional instance. A general rule based on experienced observation is fair, and what is lost by its application in one place is doubtless gained in another, and an equitable equilibrium maintained. Of those suggested the revenue basis appears to be much more uniform in its adaptability and much

[13] St. Louis & S. F. R. Co. *v.* Hadley, 168 Fed. 317, 348 (1909).

The same principles would seem to apply correspondingly when the constitutionality of the action of the Interstate Commerce Commission in fixing interstate rates is brought in question in the courts. Missouri K. & T. R. Co. *v.* Interstate Commerce Commission, 164 Fed. 645 (1908).

[14] Missouri K. & T. Ry. Co. *v.* Love, 177 Fed. 493, 498 (1910).

less subject to substantial objection. It has been frequently employed. . . . It is the one to which the mind naturally turns in every problem involving the charging of common expense to different departments of a business. When a general or common expense cannot be located, what is more obviously reasonable than to say in the first place the different branches or departments shall bear it according to the value of their products of their gross earnings, and then make due allowance for exceptional conditions if any are perceived?"

The state courts have not unnaturally made such opposition as they could to the working out of a doctrine which almost inevitably in practice means that intrastate rates cannot be reduced so as to range on a parity with interstate rates in cost per mile. In one of the cases in the state courts the problem was discussed in this manner:[15]

"The other issue the respondent has likewise failed to meet. Taking the figures from the brief filed by the respondent, we find that the local business alone produces a net earning of at least 3 per cent on the total value of the road in Florida, charging against such income the whole of the taxes. While a state is not permitted to offset local business against interstate business, and to justify low local rates by reason of the profitableness of the latter, yet the interstate and foreign business may and should be considered in determining the proportion of the value of the property of the company assignable to local business. There is no proper showing of the interstate and foreign business, so that we may determine on what fraction of the whole value of the property in Florida the company might be entitled to earn an income from local business. There is, however, a showing that the interstate and foreign business is large, and on a proper showing and a proper proportioning of the service between domestic and foreign business this percentage of net income would be largely increased. Under the scheme of distribution of the earning of the whole road between the several states through which it runs, a ton of Florida oranges or early vegetables is allowed the same credit as a ton of coal in Virginia, and no more."

In a more recent case in one of the state courts the same disposition to kick against the pricks is manifested. The Washington Southern Railway, as it appeared in the evidence in that case, although located wholly within the state of Virginia, was as a

[15] State *v.* Atlantic C. L. R. Co., 48 Fla. 146, 148, 37 So. 657 (1904).

matter of fact operated almost entirely for interstate business. An order of the State Corporation Commission fixed a maximum passenger rate of two and one half cents a mile for all railroads within the state. At this rate, the plaintiff's intrastate traffic would not make a fair return on the capital invested, but the earnings from interstate business were sufficient to afford a fair return on the total capital. The plaintiff had been voluntarily doing its passenger business in Virginia, both intrastate and interstate, at an average of 2.35 cents per mile. The plaintiff appealed from the order of the Commission. The Virginia Court held [16] that the unreasonableness of the rate fixed by the Commission was not established. Not willing to deny the settled law that profits in interstate business cannot justify reduction of intrastate rates, the court attempted to make the distinction that the established rule cannot apply where the intrastate business is merely incidental, it being impracticable to determine on what proportion of the whole capital it should earn a fair return. But experience has shown that in any determining rates, capital simultaneously used in both classes of business may in some way or other be apportioned and the respective revenues may likewise be separated by casting some proportion or other. Apparently some such method should have been employed in this case; the result, however, may in the particular case have been right, on the ground that the company did not furnish sufficient data for making any computations. The court relied also on the adoption of similar rates by the railroad; but, except to strengthen the presumption of reasonableness, that cannot affect the constitutionality of the rates ordered by the Commission.

VI

The interblending of operations in the conduct of interstate and local business by interstate carriers is apparent. The same right of way, terminals, rails, bridges and stations are provided for both classes of traffic; the proportion of each sort of business varies from year to year, and indeed, from day to day. Attention was drawn recently to the extreme difficulty and intricacy of the calculations which must be made in the effort to establish a segregation of intrastate business for the purpose of determining the return

[16] Washington So. Ry. Co. *v.* Commonwealth, 112 Va. 515, 71 S. E. 539 (1911).

to which the carrier is properly entitled therefrom. Yet, realizing all this, the Supreme Court said in the Minnesota Rate Cases [17]

"But these considerations are for the practical judgments of Congress in determining the extent of the regulation necessary under existing conditions of transportation to conserve and promote the interests of interstate commerce. If the situation has become such, by reason of the interblending of the interstate and intrastate operations of interstate carriers, that adequate regulation of their interstate rates cannot be maintained without imposing requirements with respect to their intrastate rates which substantially affect the former, it is for Congress to determine, within the limits of its constitutional authority over interstate commerce and its instruments the measure of the regulation it should supply."

In the Minnesota Rate Cases there was no substantial dispute as to the amount of the entire revenue assignable to the state or as to its division between interstate and intrastate business, as an examination of the transactions in which the revenue was obtained permitted the making of the requisite apportionments with reasonable certainty. The master to whom the cases were referred then proceeded to ascertain the total expenses incurred by the carrier within the state in moving both interstate and intrastate traffic within its borders from the accounts of the company in a way found satisfactory. This expense was then divided between freight and passenger business according to a process subject to a certain per cent of error. Those items of cost which were directly incurred in each sort of business, and not common to both, were directly assigned; and such items were found to cover about sixty per cent of all expenses. The remaining items, those of common expense, were divided by the master between the freight and passenger business upon the ratio, as to most of them, of revenue train-miles, and as to the other, of revenue engine-miles.[18]

The net profits of the interstate and intrastate businesses respectively, passenger and freight, were then found by deducting

[17] 230 U. S. 352 (1913).

But as was pointed out in the Shreveport Case, there are limits even in the present situation to the extent to which the state may by its orders put intrastate rates out of line with interstate rates. Houston E. &. W. T. Ry. Co. *v.* United States, 234 U. S. 342 (1914).

[18] Compare to the same effect the working out of the problem in the Missouri Rate Cases, 230 U. S. 474 (1913).

the apportioned share of expense from the apportioned share of revenue, and the rate per cent of the net profit upon the property value assigned to each sort of business was computed. The master concluded that the returns from intrastate transportation were unreasonably low and hence that the rates in question were confiscatory. But, as the Supreme Court pointed out, the validity of this result depended upon the estimate of the value of the property within the state and the apportionments both of value and of expense between interstate and intrastate operations. On the method of appraising property, it was held that certain elements of value largely relied upon by the master were not to be regarded in regulation of rates. And furthermore it was held that, where the constitutional validity of state action is involved, general estimates based upon arbitrary ratios of division between interstate and intrastate business cannot be accepted as adequate proof to sustain a charge of confiscation.[19]

Having thus ascertained the share of the expense within the state of the freight and passenger departments respectively, it remained to divide that share, in each case, between the interstate and intrastate business. This apportionment was made by the master, in the case of freight expense, upon what was termed an "equated ton-mile basis"; and in the case of passenger expense upon an "equated passenger-mile basis." That is to say, the master concluded that the cost per ton-mile of doing the intrastate freight business was at least two and one half times the cost per ton-mile of the interstate freight business, and hence he divided the total freight expense according to the relation of the interstate and intrastate ton-miles after the latter had been increased two and one half times. In the case of the passenger expense, he concluded that the cost per passenger-mile in the intrastate business was at least fifteen per cent greater than that in the interstate business, and the total passenger expense was divided upon the relation of passenger-miles after increasing the intrastate passenger-miles fifteen per cent. By the use of equalizing factors, the same result was obtained upon what was called an "equated revenue basis." But the Supreme Court insisted that there was not sufficient justification by any evidence in the record to support the master

[19] See also Pennsylvania R. R. *v.* Philadelphia Co., 220 Pa. St. 100, 68 Atl. 676 (1908).

in his assumption that the cost of doing intrastate business was so out of proportion to the cost of moving interstate traffic.[20]

VII

Even in a complicated business such as railway transportation, it ought to be possible to determine the peculiar cost of a particular service with some degree of accuracy. The first difficulty that presents itself, as has been seen, is that the ordinary railroad is engaged in at least two different businesses, the transportation of freight and the transportation of passengers, with their costs intermingled. Now, many of the particular costs of moving traffic can be separated — the wages paid the train crews of freight trains from those paid to the train crews of passenger trains, and the fuel burned by freight locomotives from that burned by passenger locomotives, to take two important items. Moreover, to a certain extent the entire expense of transportation may thus be judged from the sums expended in operation. When the average amount expended in moving typical quantities of a given commodity is known, a standard is established by which it may be seen whether there is not a full return to the railroad of the entire cost attributable to the transportation of these goods. It would be wrong upon any theory to ignore the cost of service, in so far as it may thus be estimated; for to serve some shippers for less than the special costs of serving them would be plainly unfair to other shippers, who would almost inevitably be called upon to make up the deficiency.[21]

When the separable costs of operation have thus been distributed to the different kinds of services rendered, it will be found that from something like 66⅔ per cent of the total expenditures for which the company should be recouped have been thus accounted for, the percentage depending upon the kind of business in general and the accounting of the company in particular. This determination of nearly two thirds of the average cost for particular services

[20] See Morgan's L. & T. R. & S. S. Co. *v.* Railroad Commission, 127 La. 636, 53 So. 890 (1910).

[21] Northern Pacific R. R. Co. *v.* McCue, 35 Sup. Ct. 429 (1915).

It has been made clear by the Supreme Court for some time that it would not permit the Interstate Commerce Commission to set aside a rate which was giving the railroad only the cost of the service, fairly proportioned. Interstate Commerce Commission *v.* Stickney, 215 U. S. 98 (1909).

with sufficient accuracy gives to the further computation greater reliability, as it greatly diminishes the percentage of error in the total, due to the comparative inaccuracy of the other third. This third consists of the part allocated to the particular business in question of the joint costs of operation, which consist principally of the general expenses and capital charges. Even here some distribution can be made. In so far as the freight management and passenger management are divided between different officials, their salaries may be set apart; and, as to a large extent freight and passenger equipment and terminals are divided, their capital charges may be separated.[22]

There remains, however, a very considerable total of joint costs inextricably combined — the salaries of the executive officers and the capital charges upon the roadbed, for example. At this point we are for the first time really driven to computation upon an artificial basis to arrive at some distribution; and obviously this is to be arrived at by striking some proportion. Some students of this subject are content to rest this in all processes of allocation upon respective utilization, dividing these joint costs in the proportion, say, of ton mileage to passenger mileage. But this proportion often throws too great a burden upon the passenger service, the receipts from the passenger train being less than those from the freight train. Other persons maintain that the volume of business done should invariably determine the proportion, dividing these joint costs, say, in the proportion of freight receipts to passenger receipts. But this proportion, in turn, often throws too great a burden upon the freight traffic, the passenger transportation usually receiving more service than its proportion of the total receipts.[23]

With due deference to those who have been worried in choosing between these two bases of casting proportions — the revenue basis and the operating basis — the writer would suggest that by compound proportions, utilizing all of the comparative factors which would obviously have a determining influence, the respective errors in the single proportions would be largely compensated and in each case a defensible result would be reached. For example, one significant comparison to ascertain whether relative

[22] Missouri Pacific Ry. Co. *v.* Tucker, 230 U. S. 340 (1913).

[23] Southern Pacific Co. *v.* Campbell, 230 U. S. 537 (1913).

injustice is being done one traffic as against another is through the earnings per car. But, where the commodity moves in trainloads, the earnings per train-mile furnish the best criterion. Where the system of operation on a given railroad makes the assignment of two locomotives to the freight train the usual thing while the lighter passenger business is almost invariably handled by one locomotive, it would seem to be fairer to make the comparison in engine miles instead of train miles. And in general it may be said that no simple proportion is sufficient in itself; a compound is more apt to show reasonableness than any of its factors alone. In arriving at the average cost for given transportation, the fairest basis for division of costs will be that taking into account all factors in traffic movement. Whatever factors, or combinations of factors, are employed in determining what should be the proper average rate per ton per mile for the traffic in question, it is obvious that the carriers are entitled to a higher revenue per ton per mile than this average in the case of a given haul which is shorter than the average.[24] This is the salient fact in comparing intrastate traffic with its low average haul and interstate traffic with its much higher average haul.

VIII

Even in the latest cases in the Supreme Court dealing with the general problem under discussion, there is still no attempt to work out, as yet, a formula by which the separation of interstate and intrastate accounts in federal and state regulation of rates may be determined. The Supreme Court still does little more for us than to set forth, as if for further consideration, the processes of allocation pursued by the respective litigants, contenting itself with showing that whichever basis be followed the result in the particular case would be the same. This appears in a striking way in an important decision at the present term,[25] which to many seems to mark an epoch in the science of rate regulation. The passenger rate there in question went into effect in May, 1907, and was

[24] See Allen *v.* St. Louis I. M. & So. Ry. Co., 230 U. S. 553 (1913).

[25] Norfolk & W. Ry. Co. *v.* Conley, 35 Sup. Ct. 437 (1915).

It does not seem possible that cases like Atlantic C. L. R. Co. *v.* North Carolina Corp. Comm., 206 U. S. 1 (1907), can stand any longer, holding as they have that a state body can make an order requiring a service to be rendered although considered as local service it results in a loss.

observed by the company until about September, 1909, when, under the terms of the interlocutory injunction in the suit, the charge was increased to two and one half cents a mile. There were, therefore, two fiscal years — June 30, 1907, to June 30, 1909 — during which the company operated its road in West Virginia under the statutory rate. It was found that the intrastate passenger receipts, which had been $362,997.74 in the fiscal year 1906–07, had fallen, notwithstanding a considerable increase in the number of passengers and passenger mileage, to $289,943.22 in the fiscal year 1907–08. The passenger expenses for the latter year, estimated according to the method above set forth, together with taxes, amounted to $275,519.79, leaving a net surplus of $14,423.43. In the following fiscal year, 1908–09, the intrastate passenger receipts were $281,864.50. This showed a reduction of $81,133.24, as compared with the fiscal year 1906–07, although there was a gain over that year of 1,567,374 in the passenger mileage. The expenses attributed by the company to the intrastate passenger traffic, including taxes, for the year 1908–09, amounted to $283,416.62, thus leaving a deficit in the passenger operations of $1,552.12.

Evidence was introduced on behalf of the company showing how the results were obtained according to its calculations. It was testified that the intrastate passenger receipts had been carefully ascertained. With respect to the operating expenses, it was said that for many years accounts had been kept for the purpose of separating the expenses incident to the freight and passenger traffic respectively; that about sixty-five per cent of these expenses could be directly assigned, and that the remaining thirty-five per cent, consisting of items common to both sorts of transportation, were divided between the passenger and freight traffic on the basis of engine miles — this being deemed to be more equitable than the train-mile basis originally used, inasmuch as most of the freight was hauled by two engines. In practice, this method was assumed — in accordance with an early computation — to mean that twenty per cent of such items should be assigned to the passenger traffic; this, it was insisted, was a close approximation. Where a division of the road was partly in one state and partly in another, the passenger expenses were apportioned according to track mileage. These expenses within the state having thus been ascertained, they were divided between the interstate and intrastate traffic upon the

basis of the gross passenger earnings; that is, it was assumed that the cost of the interstate and intrastate passenger traffic was the same in relation to revenue.[26]

The opinion does not undertake to review in detail the methods used on the part of the state to apportion the various common items of expense, that is, after all items capable of direct assignment had been charged to the business to which they related. It is sufficient to say that instead of employing a general factor for the distribution of the outlays common to both kinds of traffic, freight and passenger, the principal witness for the state divided each particular common item according to its character so as to make what was deemed to be a fair apportionment of that item. In this way a variety of methods were employed which the witness described at length. After ascertaining the amount of the total expense considered to be attributable to the passenger traffic within the state, it was divided between the intrastate and interstate business; and for the most part — aside from the expense of passenger stations — the division was made on the basis of passenger miles. This, as the Supreme Court noted, was without resorting to weighting the ratio, as might not improperly be done in cases where the evidence was clear as to the additional cost alleged to be involved in doing intrastate business as compared with hauling interstate traffic.[27]

"It is apparent," said the Supreme Court, "from every point of view that this record permits, that the statutory rate at most affords a very narrow margin over the cost of the traffic. It is manifestly not a case where substantial compensation is permitted and where we are asked to enter the domain of the legislative discretion; nor is it one in which it is necessary to determine the value of the property employed in the intrastate business. It is clear that by the reduction in rates the company is forced to carry passengers, if not at or below cost, with merely a nominal reward, considering the volume of the traffic affected. We find no basis whatever upon which the rate can be supported, and it must be concluded, in the light of the principles governing the regulation of rates, that the state exceeded its power in imposing it." In

[26] Louisville *v.* Cumberland Tel. & Tel. Co., 225 U. S. 430 (1912).

[27] See the views formerly prevailing in St. Louis & S. F. Ry. Co. *v.* Gill, 156 U. S. 649 (1895).

these conclusions it will be noted that the Supreme Court has clearly enough turned its back on its former decisions, which had apparently held it not to be unconstitutional as confiscation to reduce particular rates to a point so low as to be altogether disproportionate to the other rates, so long as the schedule as a whole produced a profit.[28]

IX

This survey of the situation shows that, although the principles upon which the allocation of accounts should proceed can perhaps be stated so as to be intelligible, the working out of these principles into practice presents difficulties of computation which may to the lawyer seem almost insuperable. But it should be said that to the expert in accountancy, upon whom the lawyer in practice must rely, these are difficulties characteristic of all large operations where the costs involved are largely joint. Difficult though the problems presented may be, it is not more difficult to a lawyer, who can call an accountant to his aid, to estimate, with an approximation sufficient for the purpose, the cost of anything with which the litigation in which he is acting is concerned. It may seem impossible to tell what it will cost a railroad system to carry a ton of steel rails from one point in a state to another, but it is probably no more difficult than to determine what that ton of rails cost the great corporation which produced them. Generally speaking, the regulation of rates has been tending more and more as time goes on to be based upon the cost of service, and it is at last sufficiently clear that proportionality in allocation is the key to the computation. The principles governing the allocation of costs are just about to become clear enough to justify the expectation that the determination by computation in a given state of facts of the range within which a charge should be made, will be the method relied upon in deciding upon the reasonableness of rates. It may perhaps be exasperating to those who are faced with the occasion of making these computations, in the case of the wholly intrastate transportation of an interstate railway system, that the system cannot be treated as a unit in its operations, but must first of all be artificially divided for the purpose of regulation of rates into an interstate carrier and an intrastate carrier. But

[28] Such as Minneapolis & St. L. R. Co. *v.* Minnesota, 186 U. S. 257 (1902).

so long as in our federal system the Congress of the dominant nation chooses to respect punctiliously the jurisdiction of the legislatures of its several states, this rule of our constitutional law will continue to add its complications to a matter already complex enough in itself.

Bruce Wyman.

BOSTON, MASS.